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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,793	12/29/2000	Michael E. Knappe	062891.0493	5314

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2001 Ross Avenue  
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EXAMINER

VINCENT, DAVID ROBERT

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 05/14/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/751,793

**Applicant(s)**

KNAPPE, MICHAEL E.

**Examiner**

David R Vincent

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9-26, 28-31, 34-38 and 40-43 is/are rejected.
- 7) ☐ Claim(s) 7, 27, 32, 33 and 39 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

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***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 8-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. There is no antecedent basis for the phrase "the set" in line 4.

3. Due to the indefiniteness of the limitation as explained in the 35 USC § 112 rejection, the following rejections are based upon the broadest interpretation of the claims, disregarding the limitation of the set.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1-6, 8-26, 28-31, 34-38, 40-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borella (US 6,643,259) in view of Pearson (US 6,647,424).

Claims 1, 11, 21, 31, 36, 38 do not specify how the indicator is set when there are no discarded packets. For example, what if the indicator is always set to discard whether or not packets were discarded. That reads on setting an indicator in subsequent packets if (and if not) packets have been discarded (even if all packets are set to be discarded).

Claim 36 is so broad that it reads on a system where no discards at all have transpired. Meaning, when packets are never discarded and the headers are only adjusted because when routing, a router changes the MAC address and recalculates the CRC before sending the packet to its new destination. The phrase time sensitive reads on sending a file/packet to a destination within any period of time. For example sending your E-file tax return to the IRS on January 30<sup>th</sup>. However, the claims were read in light of the spec and rejected below (rather than rejecting with a router that is forwarding a packet of a tax return).

Claims 1, 11, 17, 21, 31, 34-35, 38, 41, 43 specify "operable to" is like saying adapted to and it has been held that the recitation that an element is "adapted to" perform a

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function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. In re Hutchison, 69 USPQ 138.

As shown in Figs. 1-9, Borella discloses a system and method for managing time sensitive data real-time or audio data (high priority, CBR, real-time data gets the highest QoS level and therefore receives the lowest amount of delay; QoS is directly tied to delay, see col. 6, lines 45-62) receiving a plurality of packets (Fig. 3) associated with a data connection (Fig. 1, CBR/VLL, col. 6, lines 32-45), performing congestion control by discarding at least some of the packets (using TCP Fig. 4 and/or TOS drop priorities/DP, col. 6, lines 46-62), setting an indicator (DP in TOS, col. 6) if packets have been discarded (col. 6), and determining whether packets may be discarded (using the drop priority, col. 6 and/or detecting congestion, Fig. 1 and respective disclosure; col. 9, lines 19-21), determining whether the number of packets discarded exceeds a threshold (using TCP congestion control, e.g., cols. 9-11, especially col. 10, line 14-col. 11, line 16), threshold is based on amount and type (thresholds are disclosed through cols. 9-11, and type reads on using the priorities, col. 6), and a memory "operable to" buffer (e.g., TCP buffers dealing with windows, 14, 16, Fig. 1), a processor (14, 16, Fig. 1).

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However, Borella fails to particularly call for the details of the disclosed drop priority field in the TOS (84) and as such, fails to particularly call for setting an indicator if packets have been discarded, and increasing a priority indicator, as specified in e.g., claims 1, 6, 11, 16, 21, 26, 31

As shown in Figs. 1-9, Pearson teaches a system and method for managing time sensitive data (high priority, CBR, real-time data gets the highest QoS level and therefore receives the lowest amount of delay; QoS is directly tied to delay), thresholds (Fig. 4; 507, Fig. 5; 801, 803, Fig. 8; 905/7, Fig. 9; col. 3, lines 2-3) setting an indicator if packets have been discarded (605, Fig. 6; drop precedence/DP bit, col. 4, lines 41-65; col. , lines 1-19), and increasing a priority indicator (reclassifying packets, col. 5, lines 15-27, or lines 49-67).

It would have obvious to add the details of how the DP is or can be used in the TOS field because it would add more options to deciding when and how to drop packets. By using the DP, one does not have to merely classify based on priority and/or QoS. By adding the option of being able to increase the and adjust the priority and TOS fields a system can adapt more dynamically to changes in the network, e.g., routers coming back on line or businesses shutting down and there being more bandwidth available. Pearson makes it clear that packets can be

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more dynamically adjusted than by just using the notoriously well know TCP congestion control, avoidance, slow start, methods. By combining the two a system can adapt more easily to changes in both directions.

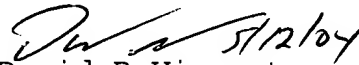
6. Claims 7, 27, 32-33, and 39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David R Vincent whose telephone number is 703 305 4957. The examiner can normally be reached on M-TH.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Olms can be reached on 703 305 4703. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
David R Vincent  
Primary Examiner  
Art Unit 2661

May 13, 2004